# Coevolution of Planets and Biospheres Ken Nealson

# Education and Public Outreach Focus on Informal Education

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# Nealson Museum Outreach: Skymobile

- Skymobile is a partnership among the Natural History Museum, Los Angeles; L.A. Unified School District, and JPL
- Funding provided by the Maxwell Gluck Foundation

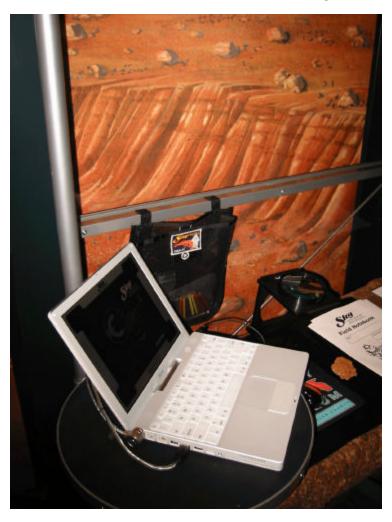


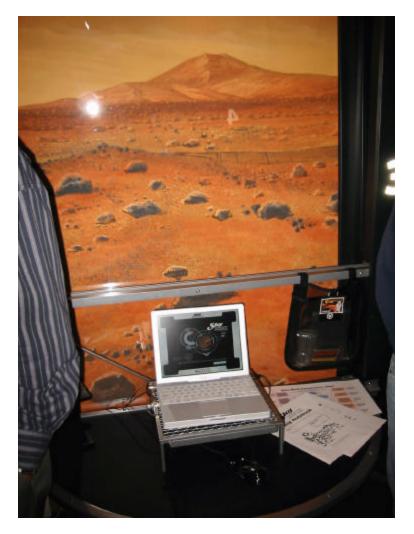
### Nealson Skymobile

 Skymobile one of three; Earthmobile and Seamobile are others

 JPL provided training for Skymobile staff on March 25

### Nealson Skymobile





## Nealson Informal Education

- More people attend museums, zoos, aquarias than attend sporting events, concerts, and movies combined every year (~800M)(AAM)
- In 1999, JPL and Denver MNS conducted a survey for Code Y to understand the needs of museums and informal educators
- 139 institutions responded
- Top science areas

Space science: 65%

- Earth science: 54%

Life science: 40%

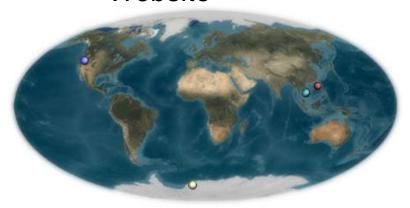
Survey results: http://talkto.jpl.nasa.gov

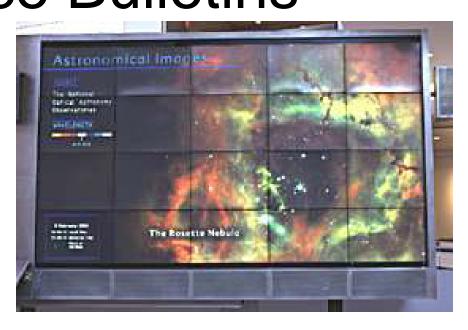
### Survey Results: Collaboration Models

- 1. NASA Workshops/Staff Development
- 2. Mapping Program/Digital Earth (place in the world, visualizations, internet, interactive)
- 3. Traveling Exhibits
- 4. Staff Exchanges
- 5. Following NASA Story (concept to data)
- 6. Youth Ambassadors
- 7. NASA Placement in Museum Programs (Traditional Approach)

## Nealson: In Development AMNH Science Bulletins

- Science Bulletins are produced by the American Museum of Natural History
  - Astro, Earth, and Bio
  - High Definition TV experience (news, data/images, feature)
  - Kiosk (interactive)
  - Website





- We are in discussion to produce a feature piece on astrobiology
- Science Bulletins are available by subscription to museums/centers (free to NASA)
- Updated weekly-semiannually

# Nealson: In Development MSU Science and Natural History Filmmaking

- Montana State University has created a MFA program in Science and Natural History Filmmaking, currently in its first year
- Students produce 15 and 30 minute films, including fundraising, scripting, filming, editing, and securing broadcast





- Program supported by Discovery (12 channels), Sony, Kodak, and others
- We are working with student producing film on life in extreme environments
- We are looking to produce additional films on field research

## Nealson: In Development Informal Educators Workshop

- Week-long workshop targeted at museum and other informal educators to discuss latest developments in astrobiology (based on 1999 Museum survey)
  - Scientist presentations
  - Hands-on experience with equipment/data
- Each participant required to develop action plan for integrating astrobiology into their institution
- Science Museum of Minnesota is partner
- We conducted similar workshop in Earth Science in fall
  - Highly successful: 22 museums attended
- Action plans are proceeding
- Products can be produced to stimulate museum programs and exhibits
  - Large format maps such as those produced for 2002 Olympics
     4/7/02 McDonald/Syvertson

# Nealson: In Development Solar System Ambassadors

- 278 Ambassadors in all 50 states and PR
  - Educators and Outreach (Entertainment, Writers)
  - Planetariums and Museums
  - Professionals (Engineers, Law, Medicine, Govt)
- Conduct special events, lectures, etc. tied to NASA missions, news releases, anniversaries
- Reach 2-3 million per year
- Current top areas of interest are asteroids, risk communication, and astrobiology
- Training in development





#### **Nealson Summary**

- Focus on Museums
  - Training museum personnel
  - Outreach programs to schools and the public
  - Visualizations and Film
  - News updates
- Partnered with experts in their fields
  - Workshop development
  - Broadcast and Film Production
- Leveraging existing programs

#### **BACKUP**

# Project Example: Walk on the World, 2002 Olympics

 Children's Museum of Utah, Science Museum of Minnesota, and NASA/JPL teamed together to produce several large images and visualizations for use at NBC Sports Gateway during Olympics

 Images will be used once Children's Museum opens

 Wall and floor images can be used as starting point for new, interactive exhibits





## Ambassadors Across America in CY 2002



278 Ambassadors in all 50 states and Puerto Rico